

PROGRAM – serverFT,c

```
#include<stdio.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<string.h>
#include <stdlib.h>
#include <unistd.h>

void main()
{
    FILE* fptr;

    int socketid,b,newsocket,len;
    char recline[100],sendline[100];
    struct sockaddr_in serveraddr,clientaddr;
    bzero(&serveraddr,sizeof(serveraddr));

    //creating socket
    socketid = socket(AF_INET,SOCK_STREAM,0);
    if(socketid<0)
        printf("Socket Cannot be created\n");
    else
        printf("Socket Created\n");

    //setting parameters of socket
    serveraddr.sin_family=AF_INET;
    serveraddr.sin_port=htons(3000);
    serveraddr.sin_addr.s_addr=htonl(INADDR_ANY);

    //binding socket
    b = bind(socketid,(struct sockaddr*)&serveraddr,sizeof(serveraddr));
    if(b<0)
        printf("Cannot bind socket\n");
    else
        printf("Socket Binded Successfully\n");

    //listen()
    listen(socketid,10);

    len=sizeof(clientaddr);
    newsocket=accept(socketid,(struct sockaddr*)&clientaddr,&len);
    printf("Connection Accepted\n");

    bzero(recline,100);
    bzero(sendline,100);

    char str1[100];

    while(1)
    {
```

```

//message recv from client
read(newsocket,recline,100);
if (strcmp(recline,"quit")==0 || strcmp(sendline,"quit")== 0)
    exit(0);
//display
printf("Message from Client\n");
printf("-----\n");
puts(recline);

//opening file
fptr = fopen(recline,"r");
if (fptr == NULL){
    strcpy(sendline,"Error while opening the file");
}
else{
    strcpy(sendline,"");
    while(fgets(str1,100,fptr) != NULL){
        strcat(sendline,str1);
    }
}

puts(sendline);
write(newsocket,sendline,sizeof(sendline));
if (strcmp(recline,"quit")==0 || strcmp(sendline,"quit")== 0)
    exit(0);
}
close(socketid);
}

```

PROGRAM - clientFT.c

```

#include<stdio.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<string.h>
#include <stdlib.h>
#include <unistd.h>

void main()
{
    int socketid,len;
    char sendline[100],recline[100];
    struct sockaddr_in serveraddr,clientaddr;
    bzero(&serveraddr,sizeof(serveraddr));

    //creating socket
    socketid=socket(AF_INET,SOCK_STREAM,0);
    if(socketid<0)
        printf("Socket Cannot be created\n");
    else
        printf("Socket Created\n");
}

```

```

//setting parameters of socket
serveraddr.sin_family=AF_INET;
serveraddr.sin_port=htons(3000);
serveraddr.sin_addr.s_addr=htonl(INADDR_ANY);

//connecting to server
connect(socketid,(struct sockaddr*)&serveraddr,sizeof(serveraddr));
printf("Client Connected\n");

bzero(sendline,100);
bzero(recline,100);

while(1)
{
    //messaging from client to server
    printf("Enter File Name = ");
    gets(sendline);
    write(socketid,sendline,sizeof(sendline));
    if(strcmp(recline,"quit")==0 || strcmp(sendline,"quit")==0)
        exit(0);

    //message recv and display from server
    read(socketid,recline,100);
    if(strcmp(recline,"quit")==0 || strcmp(sendline,"quit")==0)
        exit(0);
    printf("Message from Server\n");
    printf("-----\n");
    puts(recline);
}
close(socketid);
}

```

OUTPUT



```

admin_GK@administrator52: ~/Desktop/FTP
admin_GK@administrator52:~/Desktop/FTP$ gcc serverFT.c
admin_GK@administrator52:~/Desktop/FTP$ ./a.out
Socket Created
Socket Binded Successfully
Connection Accepted
Message from Client
-----
hi.txt
hi
hello

Message from Client
-----
hello.txt
helloo
hii
line 3
line 4
line 5
admin_GK@administrator52:~/Desktop/FTP$ 

```

```
admin_GK@administrator52: ~/Desktop/FTP
admin_GK@administrator52:~/Desktop/FTP$ gcc clientFT.c
clientFT.c: In function 'main':
clientFT.c:38:9: warning: implicit declaration of function 'gets'; did you mean
'fgets'? [-Wimplicit-function-declaration]
   38 |         gets(sendline);
      |         ^~~~~
      |         fgets
/usr/bin/ld: /tmp/cc8B8IP9.o: in function `main':
clientFT.c:(.text+0x133): warning: the `gets' function is dangerous and should not be used.
admin_GK@administrator52:~/Desktop/FTP$ ./a.out
Socket Created
Client Connected
Enter File Name = hi.txt
Message from Server
-----
hi
hello

Enter File Name = hello.txt
Message from Server
-----
helloo
hii
line 3
line 4
line 5
Enter File Name = quit
admin_GK@administrator52:~/Desktop/FTP$
```